



PATENT SPECIFICATION

589,601

Application Date: June 23, 1944.

No. 12000/44.

Complete Specification Left: June 22, 1945.

Complete Specification Accepted: June 25, 1947.

PROVISIONAL SPECIFICATION

Delivering Portland Cement from a Hopper on to a Belt

We, CECIL WHEATLEY STANCLIFFE, a British subject, and WINGET LIMITED, a British Company, both of the Company's address, Rochester, Kent, do hereby declare the nature of this invention to be as follows:—

This invention relates to apparatus for delivering Portland cement from a hopper or like container on to a belt which takes the cement through a gate or screeding device which determines the quantity of cement fed in a given time.

With this kind of apparatus as heretofore constructed there has been a tendency in some circumstances for the cement to "flurry", that is to flow like a liquid like water flowing under a submerged weir and to deliver much more cement on to the belt than is intended.

To overcome this tendency, we provide in accordance with the invention a duct between the bottom of the hopper and the gate or screeding device.

This duct is preferably horizontal and of sufficient length to prevent the "flurry" above referred to; it causes a solid settled or semi-settled body of cement and sufficiently dense to rest on the belt between the hopper or like container and the gate to withstand any agitation in the hopper itself due to fall of cement, contained air or other cause.

The gate or screed may take the form of an arcuate plate at the end of the duct carried by an arm or arms pivoted in ears or brackets on the top of the duct.

It will be understood that the invention is not restricted to the details of the specific embodiment described which may be varied without departing from the broad idea underlying it.

Dated the 23rd day of June, 1944.

ANDREWS & BYRNE,

Agents for the Applicants,

201—6, Bank Chambers,

329, High Holborn, London, W.C.1.

COMPLETE SPECIFICATION

Delivering Portland Cement from a Hopper on to a Belt

We, CECIL WHEATLEY STANCLIFFE, a British subject, and WINGET LIMITED, a British Company, both of the Company's address, Rochester, Kent, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to apparatus for delivering Portland cement from a hopper or like container on to a belt which takes the cement through a gate or screeding device which determines the quantity of cement fed in a given time.

With this kind of apparatus as heretofore constructed there has been a tendency in some circumstances for the cement (which is a very fine dry powder) to "flurry", that is to flow like a liquid like water flowing under a submerged weir and to deliver much more cement on to the belt than is intended.

[Price 1/-]

To overcome this tendency, we provide in accordance with the invention a method of and apparatus for delivering from a hopper a layer of Portland cement on to a belt without "flurry" in which a duct closed at the top and sides extends from the delivery end of the hopper for a long length above the belt and substantially parallel thereto and has a screeding device or gate at or near the end thereof.

This duct is substantially horizontal and of sufficient length to prevent the "flurry" above referred to; it causes a solid settled or semi-settled body of cement sufficiently dense to rest on the belt between the hopper or like container and the gate to withstand any agitation in the hopper itself due to fall of cement, contained air or other cause.

The gate or screed may take the form of an arcuate plate near the open end of the duct carried by an arm or arms

pivoted in ears or brackets on the top of the duct.

The accompanying drawing shows a cross-section through part of one form of cement delivery apparatus according to the invention.

This apparatus has a belt 1 running between rollers 2, 3 on shafts 4, 5 the latter being driven by a belt or chain 6.

10 This belt 1 runs below a hopper 7 containing cement from which passes a duct 8 closed at the top and sides.

A gate or screed 9 is normally held in raised position by an adjustable pin 10.

15 The edge 11 of this gate can be varied in height by adjusting the position of the pin 10 in the slot 13; this will vary the height of the layer 12 of cement coming out of the duct 8.

20 When the pin 10 falls to the bottom of the slot 13 the gate 9 falls to the position shown in dotted lines, and the supply of cement is shut off.

Having now particularly described and

ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A method of delivering from a hopper a layer of Portland cement on to a belt without "flurry" in which a duct closed at the top and sides extends from the delivery end of the hopper for a long length above the belt and substantially parallel thereto and has a screeding device 35 or gate at or near the end thereof.

2. Apparatus for carrying out the method of claim 1 in which the screeding device or gate is adjustable.

3. Apparatus for delivering from a hopper a layer of Portland cement on to a belt substantially as described with reference to the accompanying drawing.

Dated the 22nd day of June, 1945.

ANDREWS & BYRNE,

Agents for the Applicants,

201—6, Bank Chambers,

329, High Holborn, London, W.C.1.

Leamington Spa: Printed for His Majesty's Stationery Office, by the Courier Press.—1947.

Published at The Patent Office, 25, Southampton Buildings, London, W.C.2, from which copies, price 1s. 0d. each (inland) 1s. 1d. (abroad) may be obtained.

191/3 6 172
530

[This Drawing is a reproduction of the Original on a reduced scale.]

